

**We claim:**

1. A electronic spindle for a centrifugal rotor comprising

5 a first electrically non-conductive plate having a first side operatively attached to a mechanical spindle and having a second side opposite thereto and having embedded therein

a multiplicity of electrically conductive posts having a first end that is embedded in the electrically non-conductive plate

10 an alternating array of electrically conductive and non-conductive plates having the conductive posts passing there through, wherein each of the conductive plates is in electrical contact with one of the conductive posts, and wherein none of the conductive posts is in electrical contact with more than one conductive plate, and whereby the electrically conductive plates are insulated from one another,

an electrically conductive plate having the conductive posts passing there through at an end of the alternating array opposite to the first electrically non-conductive plate,

15 wherein the electronic spindle is mechanically and operatively attached to a motor comprising a centrifugation apparatus, and each of the electrically conductive posts is in electrical contact with an electrical contact on a centripetally motivated microsystems platform, and each of the electrically conductive plates is in electrical contact with an electrically conductive brush that transfers an electrical signal from the brush to the electrically conductive plate and to one of the electrically  
20 conductive posts, and thereby transfers the electrical signal to a rotating microsystems platform.